

IN THE SPECIFICATION

Please amend paragraph [0001] as follows:

**[0001]** The invention relates to a method for detecting ~~the a~~ magnetic flux, ~~the a~~ rotor position and/or ~~the a~~ rotational speed of the rotor in a single-phase- or multi-phase- permanent magnet or -synchronous motor or -generator ~~according to the features specified in claim 1.~~

Please amend paragraph [0002] as follows:

**[0002]** Magnetic flux, rotor position and rotational speed are defined by the stator voltage equations known per se:

$$\text{Equation (1)} \quad L \cdot \dot{i}_\alpha = -R \cdot i_\alpha + p \cdot \omega \cdot \psi_{m\beta} + u_\alpha$$

$$\text{Equation (2)} \quad L \cdot \dot{i}_\beta = -R \cdot i_\beta - p \cdot \omega \cdot \psi_{m\alpha} + u_\beta$$

in which

L is the inductance

$i_\alpha$  ~~the a~~ current in the direction  $\alpha$

$i_\beta$  ~~the a~~ current in the direction  $\beta$

$\dot{i}_\alpha$  ~~the a~~ derivative with respect to time of the current in the direction  $\alpha$

$\dot{i}_\beta$  ~~the a~~ derivative with respect to time of the current in the direction of  $\beta$

R ~~the an~~ ohmic resistance

p ~~the a~~ pole pair number

$\omega$  ~~the a~~ rotational speed of the rotor

$\psi_{m\alpha}$  ~~the a~~ magnetic flux in the direction  $\alpha$

$\psi_{m\beta}$     ~~the~~ a magnetic flux in the direction  $\beta$

$u_{\alpha}$     ~~the~~ a voltage in direction  $\alpha$

$u_{\beta}$     ~~the~~ a voltage in the direction  $\beta$

Please amend paragraph [0007] as follows:

**[0007]**        Against this background it is ~~the~~ an object of the invention to provide a system and method of the known type for detecting the magnetic flux, the rotor position, and/or the rotational speed of the rotor in a single-phase or multi-phase- permanent magnet motor or -synchronous motor or - generator.

Please insert the following paragraphs after paragraph [0012]:

These and other objects and advantages of the invention will be apparent from the following description, the accompanying drawings and the appended claims.

#### BRIEF DESCRIPTION OF ACCOMPANYING DRAWINGS

Fig. 1 is an illustrative view of a two-phase permanent magnet motor according to one embodiment;

Fig. 2 is a schematic view of an embodiment;

Fig. 3 is a schematic view of another embodiment showing measured stator currents in the  $\alpha$  and  $\beta$ - direction in comparison to the computed currents in the  $\alpha$  and  $\beta$  direction provided as a correction term;

Fig. 4 is a schematic view of still another embodiment showing a rotational speed of rotor  $\omega$  evaluated by calculation; and

Fig. 5 is another embodiment of the invention.

Please insert the following paragraph after paragraph [0039]:

For those models where rotational speed is sensed, such sensing may be done with a Hall sensor by way of example.

Please insert the following paragraphs after paragraph [0040]:

For ease of reference, a list of reference numerals and part numbers for Figs. 1-5 are as follows:

- |          |   |   |
|----------|---|---|
| 1        | - | stator                                      |
| 2        | - | rotor                                       |
| 3        | - | coil  |
| 4        | - | coil  |
| 5        | - | permanent magnet                            |
| 6        | - | motor model                                 |
| 7        | - | angle calculator                            |
| 8        | - | junction                                    |
| 9        | - | correction term                             |
| $\alpha$ | - | direction                                   |
| $\beta$  | - | direction                                   |
| N        | - | north pole of the magnet                    |
| S        | - | south pole of the magnet                    |
| 10       | - | adaptation block                            |
| 11       | - | rotational speed correction term            |
| 12       | - | node point                                  |
| 13       | - | system rotational speed correction term     |
| 14       | - | node point                                  |
| 15       | - | additional rotational speed correction term |

While the method herein described, and the form of apparatus for carrying this method into effect, constitute preferred

embodiments of this invention, it is to be understood that the invention is not limited to this precise method and form of apparatus, and that changes may be made in either without departing from the scope of the invention, which is defined in the appended claims.

What is claimed is: